

CLAIMS

1. A gene encoding a protein from merozoite of *Babesia caballi*.

2. The gene of claim 1 wherein said protein is a protein that has the amino acid sequence shown in SEQ ID NO: 2, or a protein that has the amino acid sequence shown in SEQ ID NO: 2 with one to several amino acid residues therein being deleted, substituted or added and that is immunologically reactive with an antibody or antiserum elicited by a 48kDa protein of rhoptry of *Babesia caballi* merozoite.

3. The gene of claim 1 or 2 wherein said gene has the nucleotide sequence shown in SEQ ID NO: 1, or has a nucleotide sequence that hybridizes to a complementary sequence to the nucleotide sequence shown in SEQ ID NO: 1 and encodes a protein that is immunologically reactive with an antibody or antiserum elicited by a 48kDa protein of rhoptry of *Babesia caballi* merozoite.

4. A recombinant protein from merozoite of *Babesia caballi*.

5. The recombinant protein of claim 4 wherein said protein has the amino acid sequence shown in SEQ ID NO: 2, or has the amino acid sequence shown in SEQ ID NO: 2 with one to several amino acid residues therein being deleted, substituted or added and is immunologically reactive with

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Sub A2

set forth in claim 11.

13. A method for diagnosing equine babesiasis which comprises detecting the presence of *Babesia caballi* merozoite in equine blood by using the antibody capable specifically binding to a 48kDa protein of rhoptry of *Babesia caballi* merozoite.
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